

placing a pressurized foam concentrate conduit in fluid communication with a pressurized fire fighting fluid conduit remote from a fire fighting fluid discharge nozzle;

varying a first orifice in the fire fighting fluid conduit to maintain a pre-determined pressure drop in said conduit of a value less than a fire fighting fluid discharge pressure drop; and

varying in concert with the first orifice a second orifice in the foam concentrate conduit such that foam concentrate is proportioned into the fire fighting fluid.

25. (New) The method of claim 24 wherein the first orifice is varied to maintain a pressure drop of less than approximately 25psi.

26. (New) The method of claim 25 wherein the first orifice is varied to maintain a pressure drop of approximately 15psi.

27. (New) The method of claim 24 that includes pressurizing foam concentrate into the fire fighting fluid at a pressure distinct from the pressurizing of the fire fighting fluid conduit.

28. (New) The method of claim 24 that includes varying a first orifice to maintain a relatively constant pressure drop in the fire fighting fluid conduit using a pilot valve.

29. (New) The method of claim 24 that includes pressurizing foam concentrate in the foam concentrate conduit at a level commensurate with the pressurizing of the fire fighting fluid in the fire fighting fluid conduit.

30. (New) The method of claim 25 that includes proportioning foam concentrate into the fire fighting fluid proximate the pressure drop.

31. (New) The method of claim 25 that includes utilizing a pilot valve to create a deluge valve.

32. (New) The method of claim 24 that includes educting, at least in part, foam concentrate into the fire fighting fluid.

Sub 33. (New) Apparatus for proportioning foam concentrate into a variable flow fire fighting fluid conduit, comprising:

a pressurized foam concentrate conduit in fluid communication with a pressurized fire fighting fluid conduit remote from a fire fighting fluid discharge nozzle;

a pilot valve in fluid communication with the fire fighting fluid conduit, structured to vary a first orifice in the fire fighting fluid conduit to maintain a pre-determined pressure drop in said conduit of a value less than a fire fighting fluid discharge pressure drop; and

a second orifice in the foam concentrate conduit adapted to vary in concert with the first orifice such that foam concentrate is proportioned into the fire fighting fluid.

34. (New) The apparatus of claim 33 wherein the pilot valve is structured to maintain a pressure drop of less than approximately 25psi.

35. (New) The apparatus of claim 33 wherein the pilot valve is structured to maintain a pressure drop of approximately 15psi.

36. (New) The method of claim 33 that includes a pilot valve structured to vary a first orifice to maintain a relatively constant pressure drop in the fire fighting fluid conduit.

37. (New) The apparatus of claim 33 that includes the foam concentrate conduit in fluid communication with the fire fighting fluid conduit proximate the pressure drop.

38. (New) The apparatus of claim 33 that includes a pilot valve structured to create a deluge valve.

Sub 39. (New) Method for proportioning foam concentrate into a variable flow fire fighting fluid conduit, comprising:

placing pressurized foam concentrate in communication with pressurized fire fighting fluid flowing through a conduit;

arranging a pilot valve sensitive to flow rate of the fire fighting fluid in the conduit; and

adapting the pilot valve to adjust a flow rate of foam concentrate into the fire fighting fluid such that the foam concentrate is proportionally metered into the fire fighting fluid.

40. (New) The method of claim 39 that includes adapting the pilot valve to vary an obstruction to flow of fire fighting fluid in the conduit.

41. (New) The method of claim 40 that includes measuring pressure drop around the obstruction.

Sub. F6 42. (New) The method of claim 40 that includes varying the obstruction by the pilot valve to maintain a fixed pressure drop in the fire fighting fluid conduit.

43. (New) The method of claim 39 that includes adjusting a flow rate of foam concentrate by adjusting an orifice in a foam concentrate flow conduit.

Sub 44. (New) Apparatus for proportioning foam concentrate into a variable flow fire fighting fluid conduit, comprising: